[0132]

CLAIMS

1. An adhesive film comprising a polyimide film and an adhesive layer containing a thermoplastic polyimide, the adhesive layer being disposed on at least one surface of the polyimide film,

wherein the polyimide film is formed by a process comprising:

step (A) of casting and applying a solution containing a polyamic acid onto a support to form a gel film;

step (B) of stripping off the gel film and fixing both ends of the gel film; and

step (C) of heating and transporting the film with both ends being fixed,

wherein in at least a portion of step (C), the film is transported in a state loosened in the TD direction.

[0133]

2. The adhesive film according to Claim 1, wherein the relationship $-15 \leq \theta \leq 15$ is satisfied at any position in the width direction (TD direction) of the film, wherein $\theta(^\circ)$ is the angle of molecular orientation axis to the MD direction of the polyimide film.

[0134]

3. The adhesive film according to Claim 1 or 2, wherein

the relationships $2 \leq \alpha_1 \leq 10$, $13 \leq \alpha_2 \leq 25$, and $20 \leq (\alpha_1 + \alpha_2) \leq 40$ are satisfied, wherein α_1 (ppm/°C) is the coefficient of linear expansion (200°C to 300°C) of the polyimide film in the MD direction, and α_2 (ppm/°C) is the coefficient of linear expansion (200°C to 300°C) of the polyimide film in the TD direction.

[0135]

4. A flexible metal-clad laminate obtained by laminating a metal foil to the adhesive film as defined in any one of Claims 1 to 3 with a thermal roll laminator including at least one pair of metal rollers.

[0136]

5. The flexible metal-clad laminate according to Claim 4, wherein the total of the rate of change in dimensions before and after the removal of the metal foil and the ratio of change in dimensions before and after heating the laminate from which the metal foil has been removed at 250°C for 30 minutes is in a range of -0.06% to +0.06% both in the MD direction and in the TD direction.

[0137]

6. A method for producing an adhesive film including a polyimide film and an adhesive layer containing a thermoplastic polyimide, the adhesive layer being disposed on at least one surface of the polyimide film, the method comprising forming the polyimide film by a process

comprising:

step (A) of casting and applying a solution containing a polyamic acid onto a support to form a gel film;

step (B) of stripping off the gel film and fixing both ends of the gel film; and

step (C) of heating and transporting the film with both ends being fixed,

wherein in at least a portion of step (C), the film is transported in a state loosened in the TD direction.